PTO/SB/08A (08-03) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

THE MADE Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/781,488			
Filing Date	02/18/2004			
First Named Inventor	Hermann Tropf			
Art Unit	2171			
Examiner Name				
Attorney Docket Number	BSSPT04			

U. S. PATENT DOCUMENTS Name of Patentee or Pages, Columns, Lines, Where Examine Cite **Document Number Publication Date** MM-DD-YYYY Relevant Passages or Relevant Applicant of Cited Document Initials' Figures Appear Number-Kind Code^{2 (8 known)} ^{US-} 6,510,435 01-21-2003 Bayer CDA 1 ^{US-} 20030004938-A1 01-02-2003 Lawder 2 DA US-US-US-US-US-US-US-US-US-ÜS-US-US-US-US-US-ŪS-US

Examiner	Cite	FORE Foreign Patent Document	IGN PATENT DOCU	Name of Patentee or	Pages, Columns, Lines,	Π
Initials*	No.1	Country Code ³ "Number ⁴ "Kind Code ⁸ (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	70
COT	3	DE-196 35 429-A1	03-05-1998	BAYER, et al.		~
						L
	├					L

Examiner Signature	. Rohn	Date Considered	6-29-06

EXAMINER: Tritial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the sental number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the Inis collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Tradamark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO				Complete if Known		
Subsum	18 IO IOIII 1443/F1O			Application Number	10/781,488	
INF	ORMATION	DIS	CLOSURE	Filing Date	02/18/2004	
STATEMENT BY APPLICANT				First Named Inventor	Hermann Tropf	
				Art Unit	2171	
(Use as many sheets as necessary)				Examiner Name		
Sheet	2	of	3	Attorney Docket Number	BSSPT04	

		NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
CDA	4	TROPF, et al., "Multidimensional Range Search in Dynamically Balanced Trees." Angewandte Informatik, Feb. 1981, pp. 71-77, Wiesbaden, Germany.	~	
CDA	5	ORENSTEIN, "Spatial Query Processing in an Object-Oriented Database System." ACM SIGMOD Intnl. Conf. on Management of Data, 1986, pp. 326-336, Vol. 15, No. 2.		
20A	6	MARKL, "MISTRAL: Processing Relational Queries Using a Multidimensional Access Technique." Doctoral Thesis, Techn. Univ. Munich, 1999, Germany.	V	No English
	7	MARKL, et al., "Universalschlüssel: Datenbankindexe in mehreren Dimensionen." c't 1/2001, pp. 174-179, Hannover, Germany.		Loughar
CM	8	FALOUTSOS, "Multiattribute Hashing Using Gray Codes." ACM SIGMOD Intnl. Conf. on Management of Data, 1986, pp. 227-238, Vol. 15, No. 2.		
204	9	LAWDER, et al., "Querying Multi-Dimensional Data Indexed Using the Hilbert Space-Filling Curve." ACM SIGMOD Record, 2001, pp. 19-24, Vol. 3, No. 1.		
Opr	10	LAWDER, "Calculation of Mappings Between One and n-Dimensional Values Using the Hilbert Space-Filling Curve." Technical Report no. JL1/00, 15 August 2000, pp. 1-13,		
		www.Citeseer.com, accessed 07/08/2003.		
COB	11	BUTZ, "Alternative Algorithm for Hilbert's Space-Filling Curve." IEEE Transactions on Computers, April 1971, pp. 424-426, Vol. 20.		
COA	12	"Literature Collection of Tree Index." www.comp.nus.edu.sg/~liaojiro/tree.htm, accessed 04/06/2004.		

Date 6-30-06 Examiner Considered Signature

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of Information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)
Approved for use through 07/31/2008. OMB 0851-0031
U.S. Petent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

	te for form 1449/PTO	uction A	at of 1995, no persons ar	re required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known		
, 2003mm	te to tom 144 ar 10	•		Application Number	10/781,488	
INF	ORMATION	DIS	CLOSURE	Filing Date	02/18/2004	
STA	TEMENT B	BY A	PPLICANT	First Named Inventor	Hermann Tropf	
	(lica as many sha	ato ne e	Aggraga	Art Unit	2171	
(Use as many sheets as necessary)				Examiner Name		
Sheet	3	of	3	Attorney Docket Number	BSSPT04	

		NON PATENT LITERATURE DOCUMENTS	•
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
•	13	SAMET, "The Design and Analysis of Spatial Data Structures." Addison-Wesley Series in Computer Science, 1 Aug. 1989,	
CZA	14	GAEDE, et al., "Multidimensional Access Methods." ACM Computing Surveys, June 1998, pp. 170-231, Vol. 30, No. 2.	
C DA	15	RAMSAK, et al., "Integrating the UB-Tree into a Database System Kernel." Proc. of the 26th Intnl. Conf. on Very Large Databases, 2000, pp. 263-272, Cairo, Egypt.	

Examiner (M), AM	Date Considered	6-30-06

*EXAMINER: Initial if reference considered, whether or not cliation is in conformance with MPEP 609. Draw line through cliation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of Information is required by 37 CFR 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including atthering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office. P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.